

REMARKS / ARGUMENTS

The present application includes pending claims 1-43. The Applicant respectfully submits that the claims define patentable subject matter.

Claims 6, 7, 13, 16, 25, 26, 32, 36, 41, and 42 stand rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the enablement requirement.

Claims 1-5, 8-12, 14-18, 20-24, and 27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Publication No. 2002/0141441 ("Neumann"), in view of U.S. Patent No. 5,918,040 ("Jarvis").

Claims 6, 13, 19, and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Neumann, in view of Jarvis, and further in view of MPEP 2144.03.

Claims 7 and 26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Neumann, in view of Jarvis, further in view of MPEP 2144.03, and still further in view of USPP 2002/0186754 ("Kawai").

Claims 28-43 are rejected for the same rationale as used for claims 1-27.

The Applicant respectfully traverses these rejections at least for the reasons previously set forth during prosecution and at least based on the following remarks.

I. Examiner's Response to Arguments

A. Arguments to the Rejection under 35 U.S.C. § 112, First Paragraph

At page 11 of the Final Office Action, in response to the rejection of claims 6, 7, 13, 16, 25, 26, 32, 36, 41, and 42 under 35 U.S.C. § 112, first paragraph, the Examiner maintains that "the specification fails to describe how the additional timer value pertains to the second wireless communication network". The Applicant respectfully disagrees and refers the Examiner to the language of claim 6, which recites "said baseband co-processor including first and second registers adapted to store said at least one timer value and an additional timer value pertinent to said second wireless communications protocol".

The Examiner seems to have overlooked that claim 6 (which is part of the specification) clearly recites the two registers (i.e., the "first and second registers"), which store the two timer values (i.e., "at least one timer value" and "an additional timer value") pertinent to the second wireless communication protocol (i.e., the WCDMA protocol). In this regard, the Applicant maintains the arguments on page 20 of the 8/28/09 response to Office Action, that the sample counter 1104 and the slot counter 1108 in Fig. 11 are the corresponding claimed "first and second registers" (i.e., "REGS" in the WCDMA Master Timer 1018 in Fig. 10) that store the "one timer value" (i.e., sample_cnt) of the sample counter 1104 and the "additional timer value" (i.e., slot_cnt) of the slot counter 1108 as shown in Figs. 12 and 13.

Based on the foregoing rationale, the Applicant maintains that "the additional timer value pertains to the second wireless communication network" in claims 6, 7, 13, 16, 25, 26, 32, 36, 41, and 42 are supported in the specification. The Applicant requests that the rejection of claims 6, 7, 13, 16, 25, 26, 32, 36, 41, and 42 under 35 U.S.C. § 112, first paragraph be withdrawn.

B. Arguments to the Rejection under 35 U.S.C. § 103(a)

With respect to the rejection of claim 1 under 35 U.S.C. § 103(a), the Examiner disagrees with the Applicant that the combination of Jarvis and Neumann does not disclose "said host baseband processor enables timing synchronization between said **first and second wireless communications systems** on the basis of timing information transferred to said host baseband processor from said baseband co-processor," as recited in claim 1.

Specifically, the Examiner cites Jarvis (Figures 1-5b, abstract, col. 2, lines 7-21 and 45-65, col. 3, and lines 35-67) and argues that "Jarvis clearly shows enabling of timing synchronization between two network system on the basis of timing information sent from one of the processor". The Examiner further alleges that when timing synchronization takes place between two processors, both processors must allow "enabling the timing synchronization" to take place, thus implies that Jarvis shows timing synchronization between processors. The Applicant respectfully disagrees.

The Examiner seems to have overlooked the Applicant's arguments on page 23 of the 8/28/09 response to Office Action, in which the Applicant argued that the two processors, namely the first processor with a first timer (i.e., Master processor) and the second processor with a second timer (i.e., Slave processor), are both situated within the same linecard (i.e., linecard 12 or 14) which is respectively connected to a corresponding network system (i.e., the network system 13 or 15). In other words, both the first processor with a first timer (Master processor) and the second processor with a second timer (Slave processor) are in fact, within the same network system (i.e., within either network 13 or network 15), and **not within separate networks** (i.e., both network 13 and network 15).

The Applicant points out that Jarvis's Fig. 1 may lead to confusion in the Examiner's recognizing that Jarvis refers both the first and second processors to the same linecard, such as linecard 12 of network 13. For example, Jarvis' Fig. 1 labels the elements within both the linecards 12 and 14 identically without differentiation (i.e., interface 30, timer 31, packet processor 32 and timer 33) 12. Furthermore, Jarvis also refers the first processor (i.e., Master processor) and second processor (i.e., Slave processor) to either the interface 30 or the packet processor 32. The Examiner is referred to the following citation of Jarvis:

"A method for performing timer synchronization between a first processor (i.e., **interface 30**) having a first timer (i.e., **timer 31**) and a second processor (i.e., **packet processor 32**) having a second timer (i.e., **timer 33**) is presented. The first processor (i.e., **interface 30**) issues to the second processor (i.e., **packet processor 32**) a first timer value

corresponding to the current value of the first timer (i.e., **timer 31**) and the second timer (i.e., **timer 33**) compares the first timer value with a second timer value corresponding to the current value of the second timer (i.e., **timer 33**)."

See Jarvis at the abstract (the Applicant has inserted the parenthetical elements with emphasis for clarification). To substantiate the above argument that Jarvis discloses the first and second processor as either the interface 30 or the packet processor 32 (of the same linecard and same network system), the Examiner is referred to following citations of Jarvis:

"In each of the linecards, the interface unit 30 and packet processing unit 32 each operate within their own separate time domain, and there is no communication therebetween, other than by the transfer of data packets. Each unit 30,32 includes an absolute time clock or timer 31,33 so that timing information may be included within packets of data therebetween... To facilitate this, data packets received by the interface unit 30 are "time-stamped" with an expiry time, which is generated from the absolute time clock therein. These packets are passed to the packet processor where they will be buffered until the packet processor is capable of handling them."

See Jarvis at col. 2, lines 37-51 (emphasis added). Jarvis clearly discloses the need of **communicating timing information by the transfer of (time-stamped) data packets between the interface unit 30 and the packet processing unit 32 "in each of the linecards"**. In other words, Jarvis discloses that the timing communication via packet transfer, is **between the interface unit 30 and the packet processing unit 32 within the same linecard, and not between the separate packet processing unit 32 in separate linecard 12 and 14, as alleged by the Examiner.**

Therefore, the Applicant maintains that Jarvis discloses that the timer synchronization between a first processor with a first timer (such as the interface unit 30 with timer 31) and a second processor with a second timer (such as the packet processor 32 with timer 33) are in the same linecard (such as linecard 12) **within the same network system** (such as network 13), and not between two different network systems. The Applicant also points out that Jarvis simply does not disclose or suggest any timer communication via packet transfer between the two packet processor 32 and the timer 33 of the two linecards 12 and 14.

Moreover, even assuming for the sake of argument that the timer synchronization is between network system 13 and 15 (which it is not), Jarvis still discloses that the network systems 13 and 15 are data communication networks for computer system (see Jarvis col. 1, lines 9-18), and not networks for wireless communication system. In this regard, the Examiner's argument that Jarvis' computer data network systems 13 and 15 can be implemented as **a first and second wireless communications systems** is deficient.

Based on the above rationale, the Applicant maintains that Jarvis does not disclose or suggest "said host baseband processor enables timing synchronization between said **first and second wireless communications systems** on the basis of timing information transferred to said host baseband processor from said baseband co-processor," as recited in claim 1. Neumann does not overcome the above deficiency of Jarvis. The Examiner also alleges that the Applicant's claim language is too broad.

The Applicant respectfully disagrees and points out that Jarvis does not disclose or suggest the claimed limitation of the Applicant's independent claim 1. In this regard, the Examiner's argument is moot.

Accordingly, the combination of Neumann and Jarvis does not establish a prima facie case of obviousness to reject independent claim 1, and the Applicant respectfully requests that the rejection to independent claim 1 under 35 U.S.C. 103(a) be withdrawn.

With regard to the rejection of independent claim 15, the Examiner disagrees with the Applicant that the cited references of Neumann/Jarvis do not disclose "generating within a multi-mode communication device, a timer capture interrupt during a predetermined timing phase". The Examiner argues that "a person of ordinary skill in the art would know how the generating of timing capture would be applied to the multimode communication device of Neumann/Jarvis". The Applicant respectfully disagrees.

In response, the Applicant argues the Examiner would consider Neumann/Jarvis to be "a person of ordinary skill in the art", yet neither Neumann nor Jarvis disclose or suggest **"generating ..., a timer capture interrupt during a predetermined timing phase"**, let alone disclose or suggest the claimed **"generating within a multi-mode communication device, ... during a predetermined timing phase"**. The Examiner is further referred to the following citation of MPEP at § 2142 which states:

The examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. If the examiner does not

produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

See MPEP at § 2142.

The Examiner is further referred to the Applicant's argument in claim 1, that Jarvis discloses timer synchronization within the same linecard 12 or 14, which is within the same network system 13 or 15. In addition, Jarvis discloses that either the linecard 12 or 14 is a single mode transmitter/receiver for the single network system 13 or 15. Jarvis does not disclose any "timer capture interrupt" in its timer synchronization method. Instead, Jarvis discloses adjusting forward or backward the timing value based on comparing the timing values of the master processor and the slave processor (i.e., the timers 31 or 33 of the interface 30 or packet processor 32).

Furthermore, since Jarvis discloses that the timer values are synchronized only **within the same network** (i.e., not between two different networks) consequently, the Applicant submits that Jarvis also does not disclose or suggest **"storing a timer value of at least one time pertinent to operation of said second wireless communication system in response to said timer capture interrupt; reading said timer value; and determining a timing relationship between said first and second wireless communication systems based upon said timer value,"** as recited in claim 15 by the Applicant.

Based on the foregoing rationale, the Applicant maintains that Jarvis does not overcome the deficiencies of Neumann. Therefore, the combination of Neumann and

Jarvis does not establish a *prima facie* case of obviousness to reject independent claim 15. The Applicant respectfully requests that the rejection to independent claim 15 under 35 U.S.C. 103(a) be withdrawn.

The Applicant maintains the arguments of the 8/28/09 response to Office Action.

II. Claim Rejections under 35 U.S.C. § 112

In response to the rejection of claims 6, 7, 13, 16, 25, 26, 32, 36, 41, and 42 under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the enablement requirement, the Applicant maintains the arguments in page 20 in the 8/28/08 reply to Office Action. The Examiner is also referred to the Applicant's above arguments in section I-A of the Examiner's Response to Arguments. Accordingly, the Applicant maintains that "the additional timer value pertains to the second wireless communication network" in claims 6, 7, 13, 16, 25, 26, 32, 36, 41, and 42 are supported in the specification. The Applicant requests that the rejection of claims 6, 7, 13, 16, 25, 26, 32, 36, 41, and 42 under 35 U.S.C. § 112, first paragraph be withdrawn.

CLAIM REJECTIONS UNDER 35 U.S.C. § 103

In order for a *prima facie* case of obviousness to be established, the Manual of Patent Examining Procedure, Rev. 6, Sep. 2007 ("MPEP") states the following:

The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396 (2007) noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Federal Circuit has stated that "rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness."

See the MPEP at § 2142, citing *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), and *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d at 1396 (quoting Federal Circuit statement with approval). Further, MPEP § 2143.01 states that "the mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art" (citing *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396 (2007)). Additionally, if a *prima facie* case of obviousness is not established, the Applicant is under no obligation to submit evidence of nonobviousness:

The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

See MPEP at § 2142.

III. The Proposed Combination of Neumann and Jarvis Does Not Render Claims 1-5, 8-12, 14-18, 20-24, and 27 Unpatentable

The Applicant turns to the rejection of claims 1-5, 8-12, 14-18, 20-24, and 27 as being unpatentable over Neumann in view of Jarvis.

A. Rejection of Independent Claims 1, 9 and 20

With regard to the rejection of independent claim 1 under 103(a), the Applicant submits that the combination of Neumann and Jarvis does not disclose or suggest at least the limitation of "said host baseband processor enables **timing synchronization between said first and second wireless communications systems** on the basis of timing information transferred to said host baseband processor from said baseband co-processor," as recited by the Applicant in independent claim 1.

The Final Office Action concedes in page 3 thereof, that "Neumann does not specifically disclose the host baseband processor enables timing of synchronization between the first and second wireless communication systems." To overcome this deficiency, the Final Office Action relies on Jarvis and states the following:

Jarvis discloses a processor enabling **timing synchronization between two network systems** on the basis of timing information sent from another processor (Figures 1-5b, abstract, col. 2, lines 7-21 and 45-65, col. 3, and lines 35-67).

See the Final Office Action at page 3 (emphasis added). The Applicant respectfully disagrees, and maintains the arguments in page 23-24 in the 8/28/08 reply to Office Action. The Examiner is also referred to the Applicant's above additional to claim 1 in section-IB of the Examiner's Response to Arguments.

Therefore, the combination of Neumann and Jarvis does not disclose or suggest at least the limitation of "said host baseband processor **enables timing synchronization between said first and second wireless communications systems** on the basis of timing information transferred to said host baseband processor from said

baseband co-processor," as recited by the Applicant in independent claim 1. Accordingly, the proposed combination of Neumann and Jarvis does not render independent claim 1 unpatentable, and a *prima facie* case of obviousness has not been established. The Applicant submits that claim 1 is allowable. Independent claims 9 and 20 are similar in many respects to the device disclosed in independent claim 1. Therefore, the Applicant submits that independent claims 9 and 20 are also allowable over the references cited in the Final Office Action at least for the reasons stated above with regard to claim 1.

B. Rejection of Independent Claim 15

With regard to the rejection of independent claim 15 under 35 U.S.C. § 103(a), the Applicant submits that the combination of Neumann and Jarvis does not disclose or suggest at least the limitation of **"generating within a multi-mode communication device, a timer capture interrupt during a predetermined timing phase of a first wireless communication system,"** as recited by the Applicant in independent claim 15.

In regard to claim 15, the Final Office Action, at page 6, concedes the following:

Neumann does not specifically discuss synchronization details e.g., generating a timer capture interrupt during a predetermined timing phase of a first wireless communication system, storing a timer value of at least one time pertinent to operation of the second wireless communication system in response to the timer capture interrupt; reading the timer value; and determining a timing relationship between the first and second wireless communication systems based upon the timer value in the format claimed by applicant.

The Examiner then relies on Jarvis for the deficiencies of Neumann, and states the following:

Jarvis discloses generating a timer capture interrupt during a predetermined timing phase of a first communication system (Figures 2-5b and col. 3, lines 59-63, col. 4, lines 1-44, col. 5, lines 1-16, "master M issues to the slave S, a data packet containing a synchronization request and its current time value Mo"), storing a timer value of at least one time pertinent to operation of said second wireless communication system in response to said timer capture interrupt (Figures 2-5b, col. 3, lines 64-67, col. 4, lines 1-44, col. 5, lines 1-16, "So"); reading said timer value (Figures 2-5b, col. 3, lines 64-67, col. 4, lines 1-44, col. 5, lines 1-16, "compares the issued master time value", note that comparing implies reading); and **determining a timing relationship between said first and second wireless communication systems based upon said timer value** (Figures 2-5b, col. 3, lines 64-67, col. 4, lines 1-44, col. 5, lines 1-16).

See *id.* (emphasis added). The Applicant respectfully disagrees, and maintains the arguments on pages 26-27 in the 8/28/08 response to Office Action. The Examiner is also referred to the Applicant's above additional arguments to claim 15 in section-IB of the Examiner's Response to Arguments.

Therefore, the combination of Neumann and Jarvis does not disclose or suggest at least the limitation of "generating within a multi-mode communication device, a timer capture interrupt during a predetermined timing phase of a first wireless communication system, ...storing a timer value of at least one time pertinent to operation of said second wireless communication system in response to said timer capture interrupt; reading said timer value; and determining a timing relationship between said first and second wireless communication systems based upon said timer value," as recited by the Applicant in independent claim 15.

Accordingly, the proposed combination of Neumann and Jarvis does not render independent claim 15 unpatentable, and a *prima facie* case of obviousness has not been established. The Applicant submits that claim 15 is allowable.

C. Rejection of Dependent Claims 4-5, 8, 10-12, 14, 16-18, 21-24, and 27

Based on at least the foregoing, the Applicant believes the rejection of independent claims 1, 9, 15, and 20 under 35 U.S.C. § 103(a) as being unpatentable over Neumann in view of Jarvis has been overcome and requests that the rejection be withdrawn. Additionally, claims 4-5, 8, 10-12, 14, 16-18, 21-24, and 27 depend from independent claims 1, 9, 15, and 20, respectively, and are also respectfully submitted to be allowable.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claims 4-5, 8, 10-12, 14, 16-18, 21-24, and 27.

IV. Rejection to Claims 6, 13, 19, and 25

Claims 6, 13, 19, and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Neumann, in view of Jarvis, and further in view of MPEP 2144.03. Based on at least the foregoing, the Applicant believes the rejection of independent claims 1, 9, 15 and 20 under 35 U.S.C. § 103(a) has been overcome and requests that

the rejection be withdrawn. Additionally, MPEP 2144.03 does not overcome the deficiencies of Neumann and Jarvis, claims 6, 13, 19, and 25 depend from independent claims 1, 9, 15, and 20, respectively, and are, consequently, also respectfully submitted to be allowable.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claims 6, 13, 19, and 25.

V. Rejection to Claims 7 and 26

Claims 7 and 26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Neumann, in view of Jarvis, and further in view of MPEP 2144.03 and Kawai. Based on at least the foregoing, the Applicant believes the rejection of independent claims 1, 9, 15 and 20 under 35 U.S.C. § 103(a) has been overcome and requests that the rejection be withdrawn. Additionally, MPEP 2144.03 and Kawai do not overcome the deficiencies of Neumann and Jarvis, claims 7 and 26 depend from independent claims 1 and 20, respectively, and are, consequently, also respectfully submitted to be allowable.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claims 7 and 26.

VI. Rejection to Claims 28-43

Claims 28-43 are rejected for the same rationale as used for claims 1-27. Since the Examiner has not provided any additional arguments for the rejection of claims 28-43, the Applicant submits that these claims are allowable at least for the reasons stated above regarding the allowability of claims 1-27.

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CONCLUSION

Based on at least the foregoing, the Applicant believes that all claims 1-43 are in condition for allowance. If the Examiner disagrees, the Applicant respectfully requests a telephone interview, and request that the Examiner telephone the undersigned Patent Agent at (312) 775-8093.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to the deposit account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

A Notice of Allowability is courteously solicited.

Respectfully submitted,

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